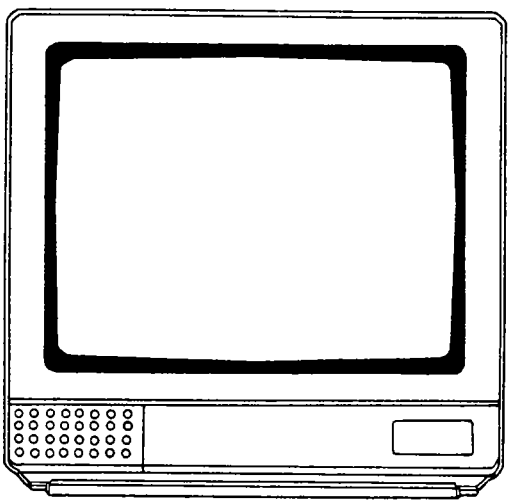
SOLID STATE COLOR TV

13GA1B

OPERATING GUIDE

Your new HITACHI color TV incorporates a host of features designed to give you excellent performance if you follow the instructions in this manual. We recommend that you read the following instructions and " IMPORTANT SAFEGUARDS" notice before turning on your TV for the first time.

This television receiver displays television closed caption (CC or CC) in accordance with paragraph 15. 119 of the FCC rules.



CONTENTS

- IMPORTANT 2
- LOCATION OF CONTROLS 3
- BEFORE OPERATING YOUR TV SET 4
- BASIC OPERATION USING FRONT PANEL CONTROLS 5
- HOW TO USE YOUR REMOTE CONTROL 5
- MENU SYSTEM ON SCREEN DISPLAY 7
- HOW TO USE MENU SYSTEM 7
- CABLE ANTENNA (CATV) OPERATION 8
- FOR CATV USER'S CONVENIENCE 9
- AUTOPROGRAM 10
- CHANNEL MEMORY 11
- CLOSED CAPTION 12
- CHILD LOCK 13
- OFF TIMER 14
- ALARM TIMER 14
- PICTURE FUNCTIONS 15
- TROUBLE SHOOTING 16

HITACHI

IMPORTANT

Follow all warnings and instructions marked on TV set.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO PREVENT ELECTRIC SHOCK.
DO NOT REMOVE COVER.
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the TV set enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the TV set.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLICANCE TO RAIN OR MOISTURE.

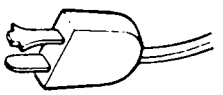
Note: • There are no user serviceable parts inside the TV set.
• Never remove the back cover of the TV set, as this can expose you to a very high voltage and other hazards.
• If the TV set does not operate properly, unplug the set and call your dealer or service shop.

WARNING:

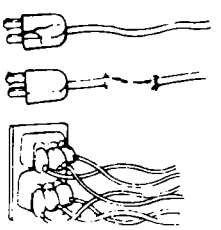
POWER SOURCE

- This TV set operates only on AC 120 volts 60 Hz.
- To prevent fire or shock hazard, connect this TV set to 120V AC 60Hz (house current) ONLY. Never connect the TV to 50Hz or DIRECT CURRENT POWER SOURCES.
- This TV set is equipped with a polarized AC line plug(a plug having one blade wider than the other).
  This plug will fit into the receptacle only one way.
  If you are unable to insert the plug fully into the receptacle, try reversing the plug.
  If the plug should still fail to fit, contact a local electrician.
- To prevent shock hazard do not use this polarized plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.
- If the power cord or plug is damaged or frayed, unplug the TV set from the receptacle and refer servicing to qualified service personnel.
- To prevent fire or shock hazard, do not overload receptacle and extension cords.
- If your television set is to remain unused for a long period of time, for instance when you go on a vacation, remove the plug from the wall outlet.

• **POLARIZED PLUG**



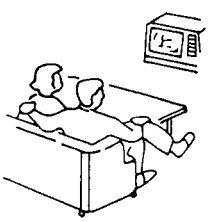
• **NO GOOD**



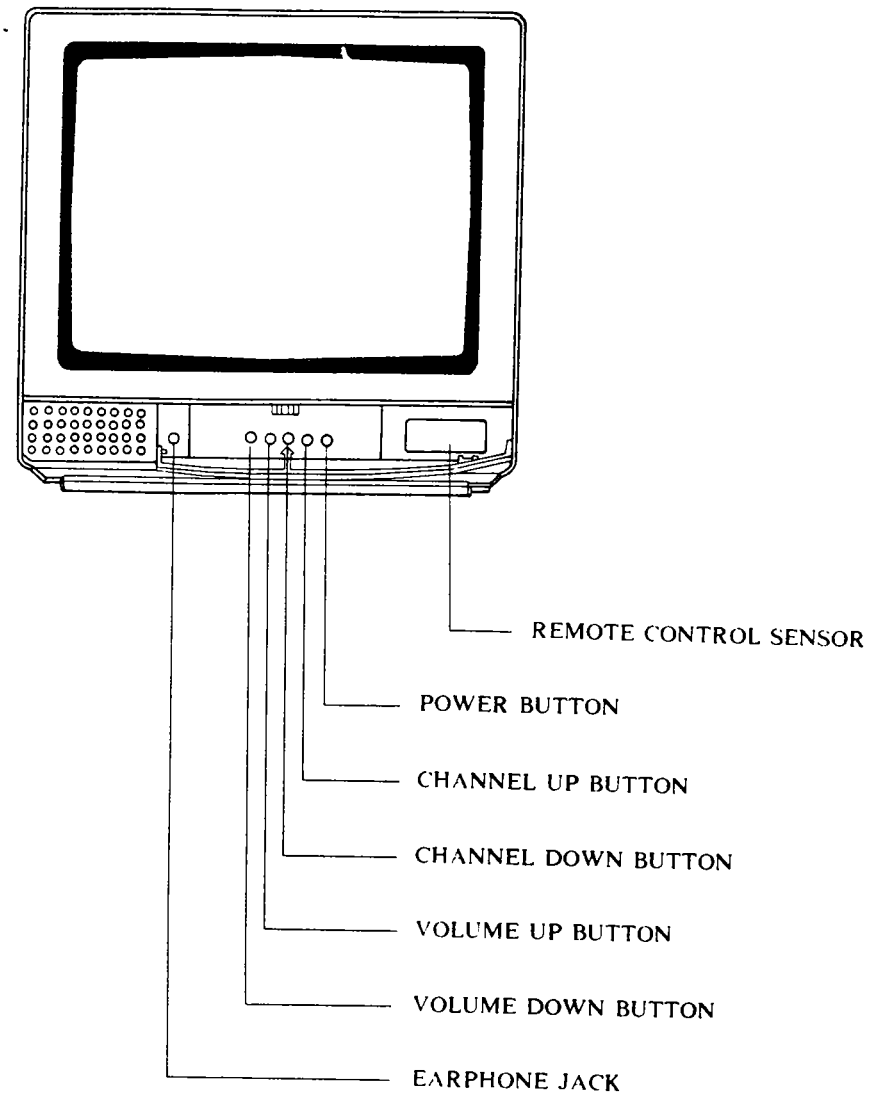
INSTALLATION

- ANTENNA
  Unless your TV set is connected to a cable TV system or to a centralized antenna system, a good outdoor color TV antenna is recommended for the best performance. However, if you are located in an exceptionally good signal area that is free from interference and multiple image ghosts, the indoor antenna may be sufficient.
- LOCATION
  Select an area where sunlight or bright indoor illumination will not fall directly on the picture screen. Also, be sure that the location selected allows a free flow of air to and from the perforated back cover of the TV set.
  To prevent damaging the TV, do not leave the set in a place where the temperature becomes too hot. For example, exposed to direct sunlight or near a heating device, etc.
- VIEWING
  This TV set may be viewed from any desired distance. Most viewers prefer a distance of three to six feet or more, depending on screen size, for maximum eye comfort.

NOTE: Model number and serial number are indicated on the back cover of the TV set.



LOCATION OF CONTROLS



BEFORE OPERATING YOUR TV SET

ANTENNA CONNECTIONS

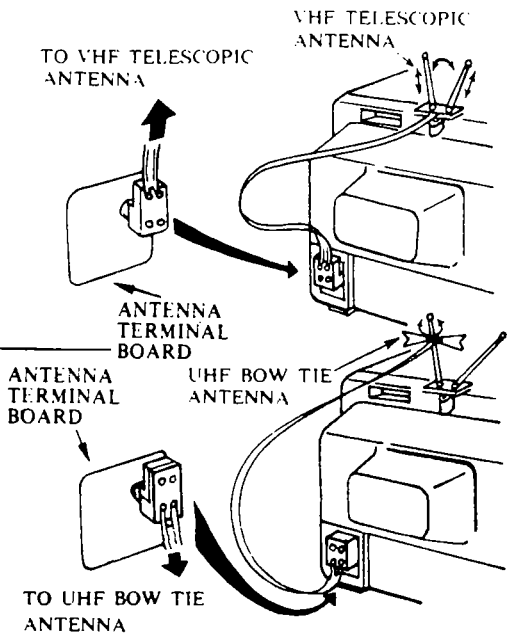
INDOOR ANTENNA

VHF TELESCOPIC ANTENNA

The VHF telescopic antenna is packed in an envelope. Attach it to the back of the cabinet as shown in figure. Push the antenna into the antenna holder on the back of cabinet until it fits and locks in the place. When turning the antenna always grasp the antenna by the base. To prevent damaging the antenna or the cabinet when the set is to be moved disconnect the leads and remove the antenna from the cabinet. Connect VHF telescopic antenna leads to the VHF screws of U V mixer. Extend the telescopic antenna and adjust its length, direction and angle for the clearest picture.

UHF BOW TIE ANTENNA

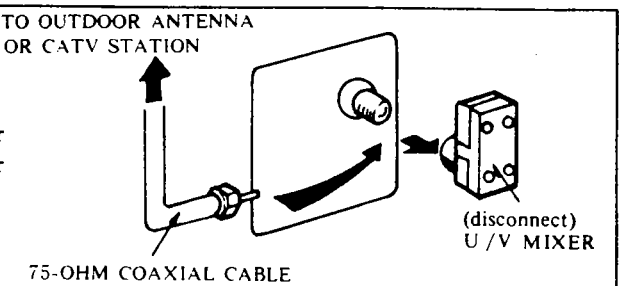
The UHF bow tie antenna is packed in the accessory bag. Attach it to the VHF telescopic antenna as shown in figure, after attaching VHF telescopic antenna to the back of the cabinet. Connect UHF bow tie antenna leads to the UHF screws of U/V mixer.



OUTDOOR ANTENNA /CATV

VHF(75Ω)ANTENNA/CATV

When using 75-ohm coaxial cable system, disconnect U/V mixer from VHF/UHF receptacle and connect the outdoor antenna or CATV cable to VHF/UHF receptacle.

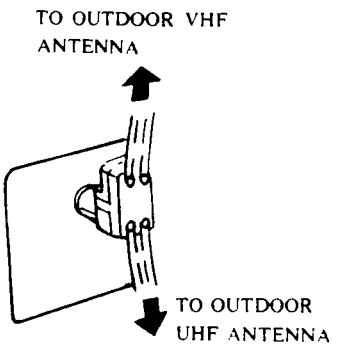


VHF(300Ω)ANTENNA

When using 300-ohm twin-lead from an outdoor antenna, disconnect VHF telescopic antenna leads from screws of the U/V mixer, and connect outdoor VHF antenna leads to the VHF screws of U/V mixer.

UHF ANTENNA

For an outdoor antenna, disconnect "bow tie antenna leads", and connect outdoor UHF antenna leads to the UHF screws of U/V mixer.



Note: If an outdoor antenna/CATV is used, disconnect the indoor antenna. Do not leave both the indoor and outdoor antennas/CATV connected at the same time, since ghosting and poor reception may be resulted.

BASIC OPERATION USING FRONT PANEL CONTROLS

● TURNING TV ON — (POWER BUTTON)

Press the POWER button to turn the set ON. Press it again to turn the set OFF.

● CHANNEL SELECTION— (CHANNEL UP/DOWN (▲/▼) BUTTONS)

To select a channel, press the UP (▲) button for the next higher channel. Press DOWN (▼) button for the next lower channel. The selected channel number is displayed in the upper right corner of the screen for about 8 seconds. (Fig. 1)

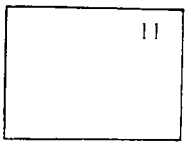


Fig. 1

● VOLUME CONTROL — (VOLUME UP/DOWN BUTTONS)

Press the VOLUME UP button to make the sound louder. Press the VOLUME DOWN button to make the sound softer. The volume level is displayed on the screen (Fig. 2).

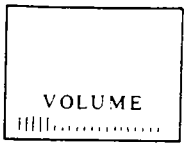


Fig. 2

HOW TO USE YOUR REMOTE CONTROL

INSTALLING BATTERIES

The remote control requires two "AA" size (SUM-3) batteries or equivalent. Before you start to operate the remote control, install the batteries as follows:

a) Open the battery cover by pushing the notched part of the cover with your finger. (Fig. 1)

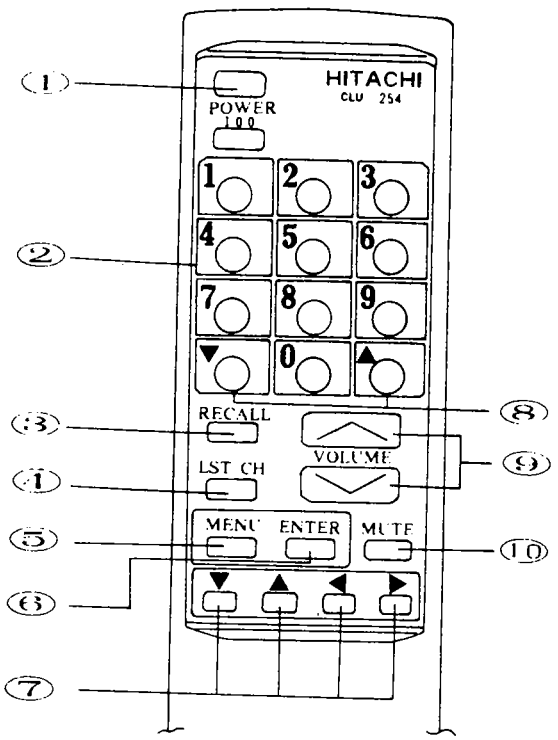
b) Install the batteries so that the (+) and (−) marks on the batteries match the (+) and (−) marks inside the battery compartment of the remote control.

c) Replace the cover.

CAUTIONS

1. Do not subject the remote control to shocks such as dropping it on the floor, etc.. Precision parts may be damaged.
2. Avoid placing the remote control in a place with high humidity or getting it wet. Do not leave it on or near a heater. Excess heat or moisture may cause the unit to cease operation.
3. If the batteries become weak, remote control operation may become erratic or stop altogether. Replace the old batteries with two new "AA" (SUM-3) types.

REMOTE CONTROL FEATURES



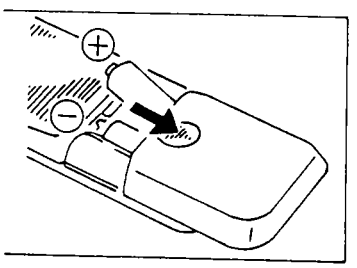


Fig. 1

To operate your TV with the remote control, point it directly at the remote sensor at the front of the TV.

① POWER BUTTON

Press the POWER button to turn the TV set on or off.

② CHANNEL NUMBER BUTTONS

Press the CHANNEL NUMBER BUTTONS to select VHF, UHF or CATV channels by entering a two or three digit number. The number of the channel you select will appear on the screen. For example, to get channel "2", press the "0" button and then the "2" button. For example, to get channel "114", press the "100" button, "1" button and "1" button in sequence.

Note: 1. If you press only one CHANNEL NUMBER BUTTON or non-existent channel numbers the TV will not change to the channel you desire. The channel number display will remain tuned to the previous channel

2. CHANNEL NUMBER BUTTONS can be used also for MENU system. (see page ⑦)

③ RECALL BUTTON

To know the channel being received, press the RECALL button. The number of the channel being received is displayed at the upper right corner of the screen.

Note: When the OFF TIMER (or ALARM TIMER) (see page ⑭) is set "OFF" (or "ALARM") and the remaining time will be displayed in lower right corner of the screen after the channel display.

④ LAST CHANNEL (LST-CH) BUTTON

When the LST-CH button is pressed, the TV returns to the channel viewed previouly. For example, when this button is pressed while watching CHANNEL 22 after changing from CHANNEL 9, it returns to CHANNEL 9 and when the button is pressed again, it returns to CHANNEL 22.

⑤ MENU BUTTON

Press this button to display the special features of the TV (see page ⑧).

⑥ ENTER BUTTON

Press this button to set a special feature in the MENU system. (see page ⑧)

⑦ MENU SELECT UP/DOWN(▲/▼), LEFT/RIGHT(◀/▶) BUTTONS

Press these buttons to select a feature in the MENU system. (see page ⑩)

⑧ CHANNEL UP/DOWN (▲/▼) BUTTONS

Press the CHANNEL UP (▲) button to select the next higher channel, and press the CHANNEL DOWN (▼) button to select the next lower channel. The selected channel number is diplayed in the upper right corner of the screen.

⑨ VOLUME BUTTON

Press the VOLUME UP (∧) button or VOLUME DOWN (∨) button until you obtain the desired level. The selected volume level is displayed in the lower part of the screen.

Note: 1. If you turn off the power when you are listening sound at a high volume more than 1/2 of maximum, volume level is reset to 1/2 when you turn on the power again.

2. Volume indication and channel number indication are not displayed at the same time.

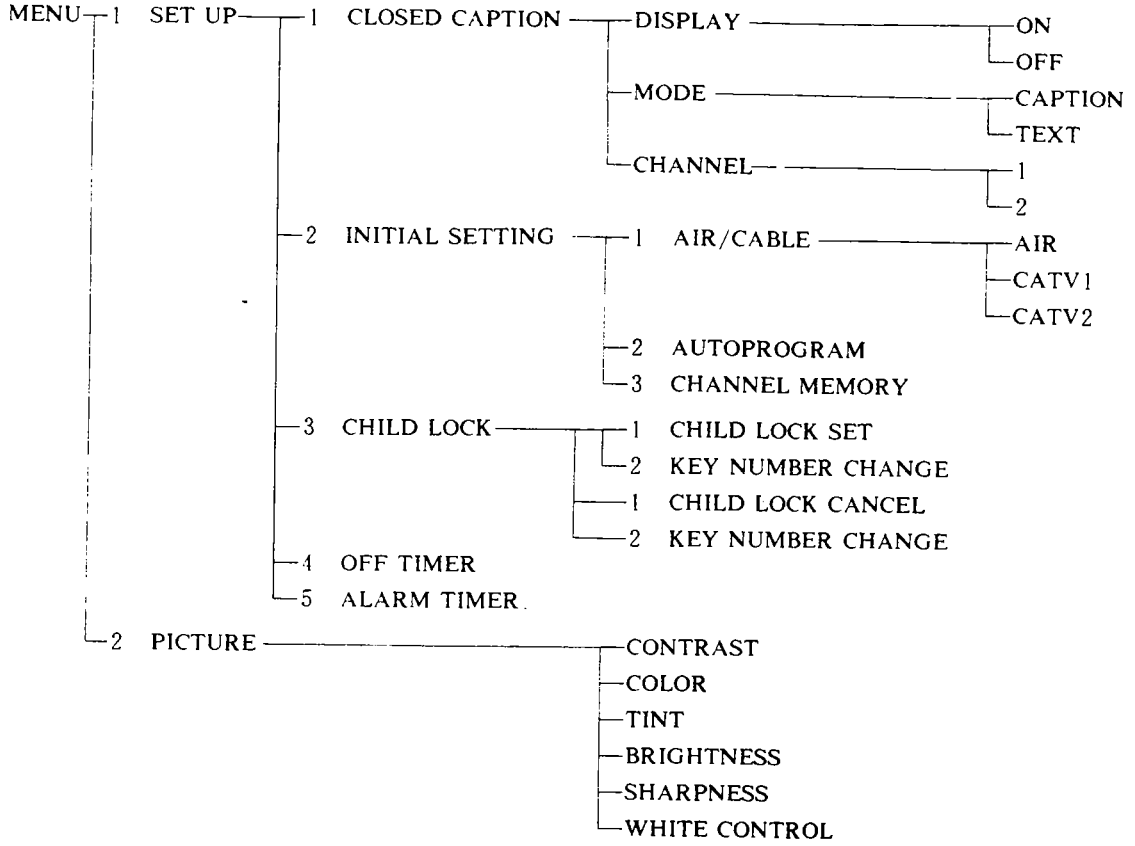
⑩ MUTE BUTTON

To turn the sound off instantly to answer the telephone, etc., just press the MUTE button. To return to the previous level, press the MUTE button again.

Note: When the MUTE button is pressed, the color bar which indicates the volume level will change to be red.

MENU SYSTEM ON-SCREEN DISPLAY

This TV allows you to set and adjust each function in the MENU SYSTEM using the remote control. Press the MENU button on the remote control to display the various functions on the screen.



HOW TO USE MENU SYSTEM

- Use MENU SELECT UP/DOWN (▲/▼), LEFT/RIGHT(◀/▶) buttons or CHANNEL NUMBER buttons to select an item.
- The selected item is displayed in red.
- Only limited number of items can be seen at the same time on the screen. To see another item, use the MENU SELECT UP/DOWN(▲/▼), LEFT/RIGHT(◀/▶) buttons or CHANNEL NUMBER buttons.
- The MENU system will exit, if you press the buttons of CHANNEL, VOLUME, RECALL, LST-CH or MUTE.

CABLE ANTENNA (CATV) OPERATION

Your TV set can receive 125 cable antenna (CATV) channels, or 12 VHF channels and 56 UHF AIR channels. (See RECEPTION BAND TABLE 1). When shipped from the factory, it is set to AIR(VHF and UHF). To receive CATV channels, please operate as follows.

- CATV ANTENNA CONNECTION

  Check that your CATV cable is connected to the antenna terminal board. (see page 4)

- CATV CHANNEL SELECTION

  1) Press the MENU button. (Fig. 1)

  2) Select "SET UP" by using MENU SELECT UP/DOWN (▲/▼) button, and press the ENTER button. (Fig. 2)

  3) Select "INITIAL SETTING" by using MENU SELECT UP/DOWN (▲/▼) button, and press the ENTER button. (Fig. 3)

  4) Select "AIR/CABLE" by using MENU SELECT UP/DOWN (▲/▼) button and press the ENTER button. (Fig. 4)

  5) Select "CATV1" or "CATV2" by using MENU SELECT UP/DOWN (▲/▼) button, and press the MENU button.

  6) CATV channel selection can be done with the CHANNEL UP/DOWN (▲/▼) buttons or CHANNEL NUMBER buttons as with VHF/UHF channels.

Notes: 1. If the reception of certain CATV channels is poor or not possible in the "CATV1" mode, Select "CATV2"

2. If the special channel frequencies that are known as the HRC (Harmonically Related Carrier) system are used with your cable system, select "CATV2".

RECEPTION BAND	
AIR	CATV1 or CATV2
VHF 2～13 ch	VHF 2～13 ch Mid band A～I, A－5～A－1ch Super band J～W ch
UHF 14～69 ch	Hyper band W＋1～W＋28ch Ultra band W＋29～W＋81ch

TABLE 1

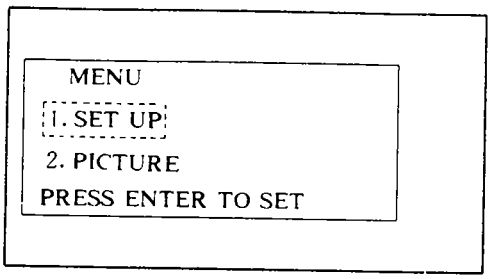


Fig. 1

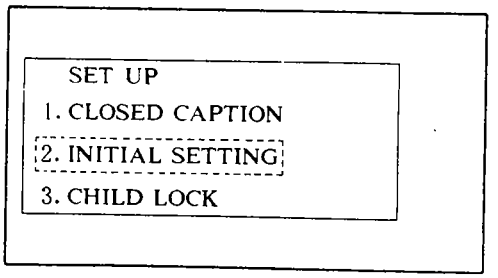


Fig. 2

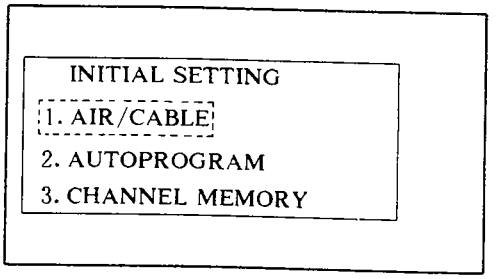


Fig. 3

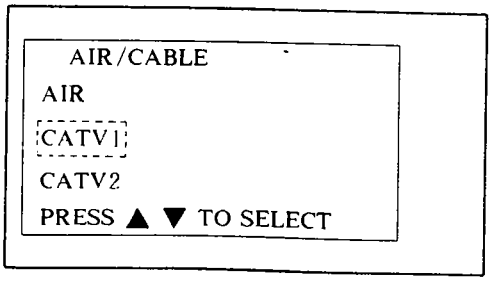


Fig. 4

FOR CATV USER' S CONVENIENCE

The chart below will be helpful for you to identify Cable TV (CATV) channels.

CABLE TV (CATV) CHANNEL REFERENCE CHART

| | | |

AUTOPROGRAM

AUTOPROGRAM stores in memory only the active channels available in your area.

For example, to set the channels by AUTOPROGRAM.

1). Press the MENU button.

2). Select "SET UP" by pressing the MENU SELECT UP/DOWN (▲/▼) buttons or the CHANNEL NUMBER button "1". (Fig. 1)

3). Press the ENTER button.

4). Select "INITIAL SETTING" by pressing the MENU SELECT UP/DOWN (▲/▼) button or the CHANNEL NUMBER button "2". (Fig. 2)

5). Press the ENTER button.

6). Select "AUTOPROGRAM" by pressing the MENU SELECT UP/DOWN (▲/▼) button or the CHANNEL NUMBER button "2". (Fig. 3)

7). Press the ENTER button.

8). Press the MENU SELECT RIGHT (▶) button to begin autoprogramming. (Fig. 4,5)

The TV will cycle through the channels available in your area and store them in memory.

When autoprogramming is completed, the lowest channel number of the channels stored in memory is displayed and the TV returns to the normal mode.

Note: If the MENU button is pressed during programming, the programming will stop.

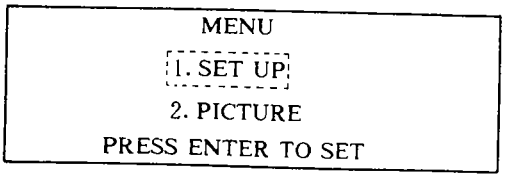


Fig. 1

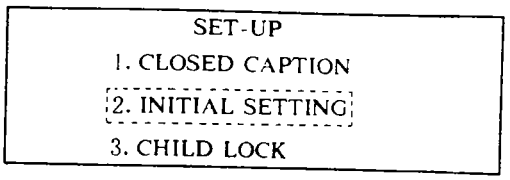


Fig. 2

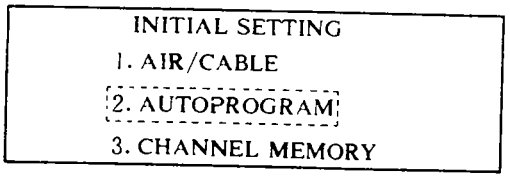


Fig. 3

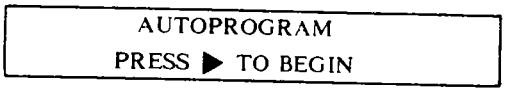
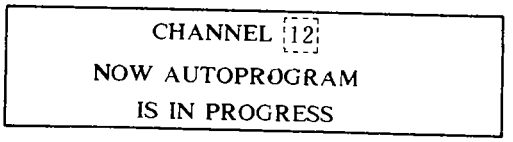


Fig. 4



Channel number is displayed during scanning AIR mode; 02 ~ 69, CATV mode; 01 ~ 125

Fig. 5

CHANNEL MEMORY

The autoprogramming function may store weak channels or channels with interference. The CHANNEL MEMORY function is used to erase undesired channels such as those described above or to store previously erased channels.

For example; to add or erase channel 11.

1). Press the MENU button.

2). Select "SET UP", "INITIAL SETTING" and "CHANNEL MEMORY" (Fig. 1) and press the ENTER button.

3). Select the channel 11 to be added or erased by using the CHANNEL UP/DOWN (▲/▼) buttons or CHANNEL NUMBER buttons.

4). Select between ADD or ERASE by using the MENU SELECT LEFT/RIGHT (◀/▶) buttons. (Fig. 2, Fig. 3)

5). If more than one channel is to be added or erased, repeat 3) and 4) for a different channel.

6). Press the MENU button.

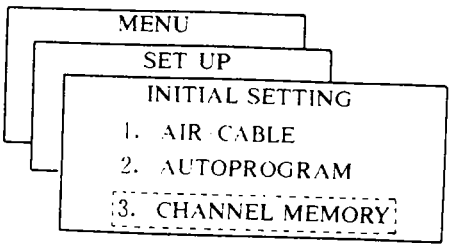


Fig. 1

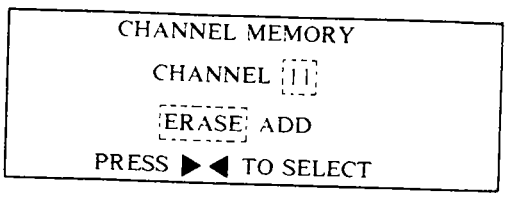


Fig. 2 (CH erased)

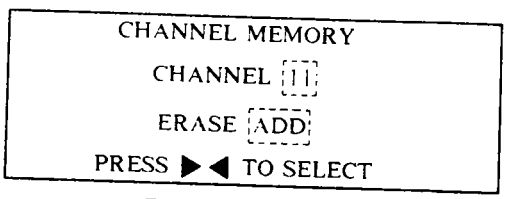


Fig. 3 (CH added)

CLOSED CAPTION

There are two types of telecaption services provided;

1. CLOSED CAPTIONS

Closed Captions are the dialogue, narration and/or sound effects of TV program or home video which are displayed on the screen.

Refer to your local TV program guide to determine which programs have Closed Captions. They are usually denoted by CC or CC.

2. TEXT

Text is written information that is presented on the entire TV screen. The information provided by the Text Telecaption Service is usually not related to the program being received. The text information varies according to the broadcaster. For example, TV program guide, news, farm report and other information.

Your TV can receive;

- Closed Captioning Channel 1 (for Closed Captions) ┐ Primary language
- Text Channel 1 (for Text) ┘ (usally English)
- Closed Captioning Channel 2 (for Closed Captions) ┐ Secondary language
- Text Channel 2 (for Text) ┘ (may vary according to region)

- How to receive Closed Caption and Text

1). Press the MENU button.

2). Select "SET UP" and "CLOSED CAPTION".

3). Use the MENU SELECT UP/DOWN (▲/▼) buttons and ENTER button to select;

"DISPLAY : ON" (or "OFF") (Fig. 1)

"MODE: CAPTION" or "TEXT"

"CHANNEL: 1" or "2"

4). Press the MENU button, and Captions or Text will appear if any such information is being broadcasted.

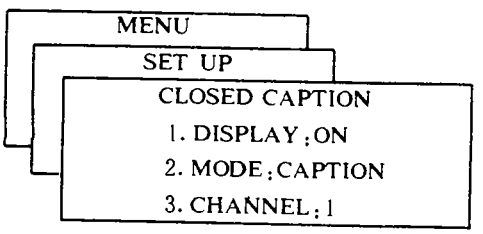


Fig. 1

Note: "TEXT" MODE will cover the entire screen. To return to normal viewing, set the "DISPLAY" to "OFF".

CHILD LOCK

By setting CHILD LOCK, your children cannot see or listen to the locked channel(s).

- **BASIC SETTING**

1). Select a channel to be child locked. (for example, CH 11)
2). Press the MENU button.
3). Select "SET UP", "CHILD LOCK" and "CHILD LOCK SET". (Fig. 1)
4). Press the ENTER button. (Fig. 2)(note:1)
5). Press the ENTER button, and the picture will be replaced with a black screen and no sound. (note:2)
6). Press the MENU button.

- **ADVANCED SETTING**

To make it more difficult for your children to find out how to see the locked channel, perform CHANGING KEY NUMBER after BASIC SETTING.

When you want to set CHILD LOCK for more channels, you must use the same key number used to set the first channel.

- **CANCELING**

By canceling CHILD LOCK for a child-locked channel, the picture and sound will be returned to normal.

1). Select a channel. (for example, CH 11)
2). Press the MENU button.
3). Select "SET UP","CHILD LOCK",and "CHILD LOCK CANCEL". (Fig. 3)
4). Press the ENTER button. (Fig. 2)(note:1)
5). Press the ENTER button,and the picture and sound will be returned to normal.
6). Press the MENU button.

(For tomorrow, set CHILD LOCK again, if necessary).

- **CHANGING KEY NUMBER**

For example,to change your key number to 234,

1). Press the MENU button.
2). Select "SET UP","CHILD LOCK",and "KEY NUMBER CHANGE". (Fig. 4)
3). Press the ENTER button. (Fig. 5)(note:1)
4). Press the ENTER button. (Fig. 6)(note:2)
5). Enter a new number by using the MENU SELECT UP/DOWN(▲/▼) and LEFT/RIGHT(◀/▶)buttons. (Fig. 7)
6). Press ENTER button and your key number will change for all the channels you have set to CHILD LOCK.
7). Press the MENU button.

After changing your key number,always use this number for setting and canceling CHILD LOCK.

If you don't know the number,see (note:2).

Note:1

When"ENTER KEY NUMBER 000"(Fig. 2) or "ENTER OLD NUMBER 000"(Fig. 5) appears:

The number always appears as "000"(the real key number is hidden). Just press ENTER button to go to the next step unless you have changed your key number from 000 to another,because the basic key number is 000. ("000" is the factory preset access code.) But after you have changed your key number,enter your current real key number and press ENTER button. If you do not know your key number, see (note:2).

Note:2

If "CHILD LOCK INCORRECT KEY NUMBER"(Fig. 8) appears for a moment, it means that you have entered a wrong key number. Enter the correct number after this indication disappears. If you do not know the correct key number,enter 777. At this time your key number will be returned to the basic key number 000.

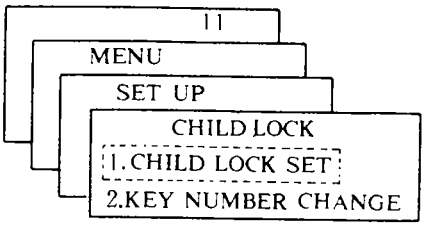


Fig. 1

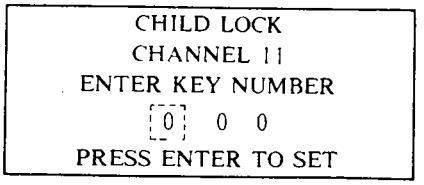


Fig. 2

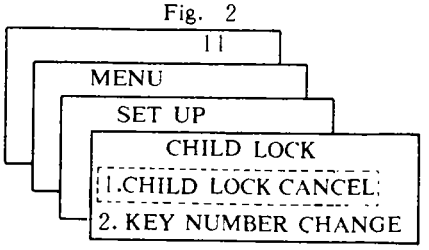


Fig. 3

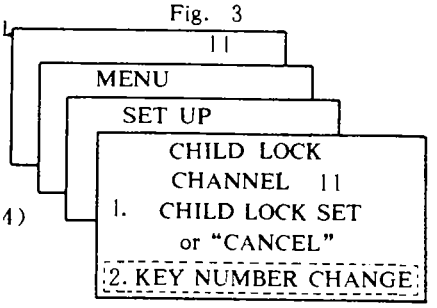


Fig. 4

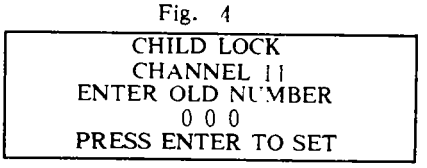


Fig. 5

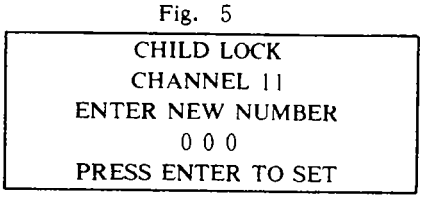


Fig. 6

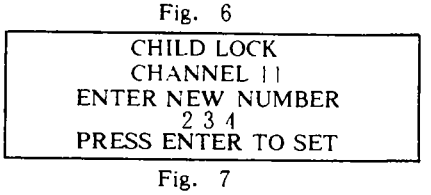


Fig. 7

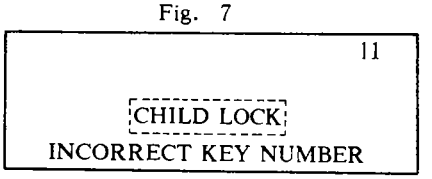


Fig. 8

OFF TIMER

The TV will turn off automatically after a predetermined time (0:01～2:59) with 1 minute remaining on the OFF TIMER, "OFF TIME 0:01" will briefly flash on the screen, then 1 minute later the TV will automatically turn itself off.

For example, to enter 2 hours 30 minutes.

1). Press the MENU button.

2). Select "SET UP"and "OFF TIMER".

3). Press the MENU SELECT UP/DOWN (▲/▼) buttons, until the hour display becomes"2",(Fig. 1) and press the ENTER button.

4). Press the MENU SELECT UP DOWN (▲/▼) button, until the minute display becomes"30" (Fig. 2) and press the MENU button.

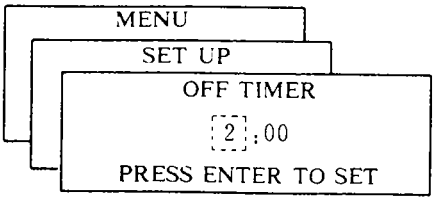


Fig. 1

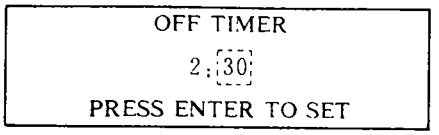


Fig. 2

Note: 1. If the TV set is turned off by the power switch before the time counts down to "0:00", the OFF TIMER function is cleared.

2. When CLOSED CAPTION is set to "DISPLAY: ON", "OFF TIMER 0:01" does not appear.

ALARM TIMER

The alarm function is convenient to use when you want to know the time when cooking is complete, when you must pick up your children, etc. (0:01～2:59)

For example, to enter 2 hours 30 minutes.

1). Press the MENU button.

2). Select "SET UP" and "ALARM TIMER".

3). Press the MENU SELECT UP/DOWN (▲/▼) button, until the hour display becomes"2"(Fig. 1), and press the ENTER button.

4). Press the MENU SELECT UP/DOWN (▲/▼) button, until the minute display becomes "30" (Fig. 2) and press the MENU button.

5). When the programmed time is reached the alarm sound will be heard 5 times with the display "ALARM TIMER" on the screen.

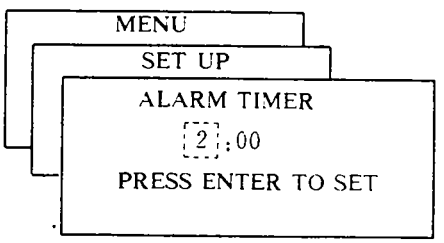


Fig. 1

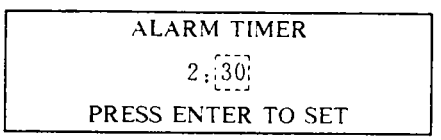


Fig. 2

Note: If the TV set is turned off by the power switch, before the time counts down to "0:00", the ALARM TIMER function is cleared.

PICTURE FUNCTIONS

- **CONTRAST**: adjusts the overall brightness and contrast of the picture.
- **COLOR**: adjusts the amount of color in the picture.
- **TINT**: adjusts the color of flesh tones.
- **BRIGHTNESS**: adjusts the brightness of the dark portions of the picture.
- **SHARPNESS**: adjusts the picture sharpness.
- **WHITE CONTROL**: adjust the white balance (hue) of the picture.

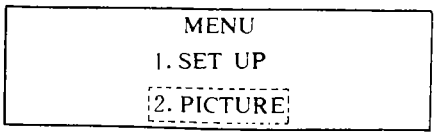


Fig. 1

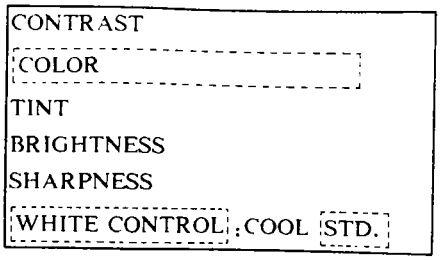


Fig. 2

For example, to adjust the amount of color.

1). Press the MENU button.

2). Select "PICTURE" (Fig. 1), and press the ENTER button.

3). Select "COLOR" (Fig. 2).

4). Press the "▶" button repeatedly (or continuously) to increase color.
Press the "◀" button repeatedly (or continuously) to decrease color.

5). Press the MENU button.

For example, to adjust the white balance (hue). When shipped from the factory, this is set to "COOL" if you prefer a reddish screen, set to "STD".

1). Select "WHITE CONTROL" (Fig. 2).

2). Press the "◀/▶" button to set the "WHITE CONTROL" to "STD." or "COOL".

3). Press the MENU button.

CAUTION: When you want to use TV games, computers and similar products with your TV, keep the "CONTRAST" and "BRIGHTNESS" functions at low settings.

If a fixed (non-moving) pattern is left on the screen for a long period of time at a high "CONTRAST" and "BRIGHTNESS" setting the image can be permanently imprinted on the screen. These types of imprints are not covered by your warranty because they are the result of misuse.

TROUBLE SHOOTING

RECEPTION PROBLEMS (external to the TV)

● **IGNITION NOISE:**
Black spots or horizontal streaks may appear, picture may flutter or drift. Usually caused by interference from automobile ignition system, neon lamps, electrical drills and other electrical appliances.

● **GHOSTS:**
Ghosts are caused by the television signal following two paths. One is the direct path and the other is reflected from tall buildings, hills or some other objects. Changing the direction or position of the antenna may improve the reception. Ghosting may also be caused by defects in the antenna system, such as unshielded lead-in or connecting several sets to the same antenna without using multiple antenna couplers.

● **SNOW:**
If your receiver is located in the fringe area of a television station where the signal is weak, your picture may be marred by the appearance of small dots. When the signal is extremely weak, it may be necessary to install a special antenna to improve the picture.

● **RADIO FREQUENCY INTERFERENCE:**
The interference produces moving ripples or diagonal streaks, and in some cases, causes loss of contrast in the picture.

CHECK HERE BEFORE CALLING FOR SERVICE

SYMPTOMS \ CHECK THESE ITEMS AND TRY THESE ADJUSTMENTS	Be sure external connection is correct	Be sure power cord is plugged in	Be sure TV is switched "ON"	Try another channel (station trouble)	Check antenna connections (back of TV)	Check antenna for broken lead-in wire	Check outside antenna	Check for local interference	Adjust Contrast control	Adjust Brightness control	Adjust Color control	Adjust Tint control	Adjust Volume control	Adjust indoor antenna
No picture, no sound	●	●	●	●	●	●	●							
Sound OK, poor picture	●			●	●	●	●	●	●	●				●
Picture OK, poor sound	●			●	●	●	●	●					●	●
Picture blurred	●			●	●	●	●	●						●
Lines or streaks in picture				●	●	●	●	●						●
Poor reception on some channels				●	●	●	●	●						●
Picture rolls vertically				●				●						
No color	●			●	●	●	●				●			●
Poor color	●			●	●	●	●				●	●		●

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